

ACCESSION NR: AP4035698

cone of expelled erosion products. The generatrices of this cone made an angle of about  $25^\circ$  with the axis of the electrodes. The maximum intensity of radiation occurred approximately 15 microsec after the onset of discharge; visible expulsion of material ceased soon after this, but the electrodes continued to glow for several hundred microseconds. Time resolution photographs showed the presence of spatially limited plasma formations moving with velocities up to  $1.5 \times 10^6$  cm/sec. These "microplasmoids" were 2 to 5 mm long (in the direction of motion), but their transverse dimensions were much smaller. Electrode material was deposited on the wall of the vacuum chamber near the electrodes. In addition to this, there was a well-focused beam of ionized metal in the direction of the axis of the electrodes. The diameter of this beam increased only to 3 cm in a distance of one meter. The electrodes were polished to a mirror finish before the discharge. After the discharge the anode (inner electrode) showed dark spots several millimeters in diameter, and the cathode (outer electrode) was pitted with many small "microcraters". These microcraters were very numerous near the inner edge of the cathode, while the outer region was free of them. The microcraters were from 1 to 5 microns in diameter in the copper cathodes, and from 10 to 150 microns in diameter and from 2 to 10 microns deep in the cadmium, tin and zinc cathodes. The craters increased in size with increasing discharge energy. Droplets of metal (1 to 20 microns) could be seen on the

2/3

Card

ACCESSION NR: AP4035698

more easily melted cathodes. Although it was the cathodes that were pitted, the microplasmoids originated at the anodes. It is suggested that their high velocities may be due to electrodynamic accelerating forces of the type discussed by H. Maecker (Zs.phys., 141, 198, 1955). A simple regenerative mechanism is suggested to account for microcrater formation: a local increase of the metal vapor density reduces the thickness of the cathode drop region. This results in a local increase of the electric field, and hence of the current. The increased current increases the local temperature, and hence the local evolution of metal vapor. "In conclusion the authors express their gratitude to A.G. Iosif'yan, member of the Academy of Sciences of the Armenian SSR, for his interest in the work, and to Yu.P. Rylov and A.A. Stupin for discussing the results." Orig.art.has: 1 formula and 4 figures.

ASSOCIATION: none

SUBMITTED: 08Jun63

ATD PRESS: 3086

ENCL: 00

SUB CODE: ME, GC

NR REF SOV: 006

OTHER: 001

3/3

Card

MIKHEYEV, N.B.; MIKHEYEVA, L.M.; MALININ, A.B.; NIKONOV, M.D.

Effect of complex formation on the separation of elements  
during cocrystallization proceeding in accordance with the  
logarithmic law. Zhur.neorg.khim. 7 no.9:2267-2270 S '62.  
(MIRA 15:9)

(Complex compounds) (Crystallization)

LEVIN, V.I.; KOZLOVA, M.D.; MALININ, A.B.

Preparation of silver-111 without a carrier. Formation of  $^{111}\text{Ag}$   
and  $^{110\text{m}}\text{Ag}$  in the neutron irradiation of palladium. Radiokhimiia  
7 no.6:673-677 '65. (MIRA 19:1)

SPITSYN V.K., aka-n. V. MIKHAYEV, N.B.; KHARMAN, A.; MALININ, A.B.

Possibility of equilibrium disturbance in a heterogeneous system  
containing a microcomponent due to solid phase re-crystallization.  
Dokl. AN SSSR 265 no.1:147-148 N 1984.

(MIRA 18:10)

1. Moskovskiy gosudarstvennyy inzhener. in. M.I. Kaluzhskiy.

L 34615-66 EWT(m)

ACC NR: AP6026572

SOURCE CODE: UR/0186/65/007/006/0673/0677

AUTHOR: Levin, V. I.; Kozlova, M. D.; Malinin, A. B.

ORG: none

28  
B

TITLE: Obtaining silver-111 with a carrier. Formation of Ag sup 111 and Ag sup 110m by irradiating palladium with neutrons

SOURCE: Radiokhimiya, v. 7, no. 6, 1965, 673-677

TOPIC TAGS: neutron irradiation, palladium, silver, chromatography, chemical purity, isotope

19  
ABSTRACT: A method has been developed for obtaining silver-111 without a carrier from neutron-irradiated palladium. The method is based on the use of extractive chromatography in a column containing an inert carrier (Ftoroplast-4, covered with a tributylphosphate film). The silver-111 preparation obtained under this method contains about 0.015-0.025% silver-110m (at the moment of completion of irradiation). No other radioactive impurities were detected. It was shown that the impurity of the long-lived silver isotope is produced by a chain of nuclear reactions. Orig. art. has: 4 figures and 3 formulas. [JPRS: 36,455]

SUB CODE: 20, 07 / SUBM DATE: 30May65 / ORIG REF: 005 / OTH REF: 003

Card 1/1

UDC: 539.172.4:546.57.02.111

0916 3266

MALININ, A. I., ADO, A. D., BOGOVAROV, V. M. and KHOMYAKOV, A. M.

"On Modification of the Water-Binding Properties of Skeletal Muscles Upon Sensibilization of the Organism to a Foreign Protein," Mater. k Patol. Fiziol, Allerg. Reaktsiy, Kazan' p 223, 1947.

MALININ, A. I.

PA 61/49TH1

USSR/Medicine - Erythrocytes  
Medicine - Fragility

Nov/Dec 48

"Problem of Allergic Alteration of Erythrocytes,"  
A. I. Malinin, Chair of Path Physiol, Kazan Med  
Inst, 4 pp

"Arkhiv Patol" Vol X, No 6

Ability of erythrocytes of normal animals to bind  
proteins of horse serum is slightly different  
from that of other normal tissues. Sensitivity  
of erythrocytes to an antigen is increased in the  
sensitization of animals (dogs, pigs) by a foreign  
serum. Increase in the sensitivity of erythrocytes

61/49TH1

USSR/Medicine - Erythrocytes (Contd) Nov/Dec 48

to an antigen and appearance of an antibody to  
the latter indicate a possible primary allergic  
alteration of erythrocytes. Dir, Chair of Path  
Physiol: Prof A. D. Ado, Corr Mem, Acad Med  
Sci USSR.

61/49TH1



11G

Serum anaphylaxis and permeability of erythrocytes.  
A. I. Malinin (Kharkov Vet. Inst.). *Izkh. Patol.* 13,  
No. 3, 21-24 (1957). In expts. with dogs, sheep, and rabbits  
it was shown that sensitization of the animals with foreign  
protein leads to disturbances in erythrocyte permeability  
expressed by retardation of ion exchange ( $Cl^-$  and  $SO_4^{2-}$ ).  
Upon administration of the antigen the changes in per-  
meability depend on the extent of cell damage: the primary  
form is the retardation of ion exchange, and a secondary --  
an increase of permeability indicating more severe destruc-  
tive changes in the cells. Intravenous sensitization leads  
to more profound changes in cell characteristics than sub-  
cutaneous. Allergic change in erythrocytes affects the  
entire cell with an increase of the ratio of erythrocyte  $Cl^-$  to  
medium  $Cl^-$ ; this lessens the difference between the  $Cl^-$  con-  
tent within the cell and outside of it. G. M. Korotkiy

Dept. of Pathological Physiology, Kyau' Med. Inst. and  
Dept. Pathological Physiol., Kharkov Med. Inst.

MALININ, A.I., professor, doktor; TERTYSHNIK, V.I., student.

Comparative study of the concentrating ability of the kidneys  
in some domestic animals. Sbor.trud.Khar'.vet.inst. 21:164-171  
'52. (MLRA 9:12)

1. Kafedra patologicheskoy fiziologii Khar'kovskogo veterinarnogo instituta.  
(Kidneys)

MALININ, A.I.

Prevention of mastitis and care for breast in puerperium. Akush. gin.  
no.3:40-42 May-June 1953. (CIML 25:1)

1. Professor. 2. Of the Obstetric-Gynecological Clinic of Yaroslavl'  
Medical Institute (Director -- Honored Worker in Science Kazakh SSR  
Prof. A. I. Malinin).

MALININ, A.I., professor, doktor biologicheskikh nauk.

The role of Pavlov's teachings in veterinary pathology. Sbor. trud.  
Khar'. vet. inst. 22:78-86 '54. (MLRA 9:12)

1. Kafedra patologicheskoy fiziologii Khar'kovskogo veterinarnogo  
instituta.  
(Veterinary pathology)

MALININ, A.I., professor, doktor biologicheskikh nauk.; TERTYSHNIK, V.I., student.; KHARCHENKO, Ye.D., assistant.

Functional state of the kidneys in experimental nephritis in dogs. Sbor. trud. Khar'. vet. inst. 22:171-177 '54. (MLRA 9:12)

1. Kafedra patologicheskoy fiziologii Khar'kovskogo veterinarnogo instituta.

(Kidneys--Diseases) (Dogs--Diseases)

**MALININ, A.I.**, professor, doktor biologicheskikh nauk.; **KONOVALENKO, L.A.**,  
assistant.

Functional state of the reticuloendothelial system in X-ray therapy  
of mange in dogs. Sbor. trud, Khar'. vet. inst. 22:178-187 '54.

(MLRA 9:12)

1. Kafedra patologicheskoy fiziologii Khar'kovskogo veterinarnogo  
instituta.

(Scabies) (Dogs--Diseases) (X rays--~~Therapeutic~~ use)

MALININ, A.I., professor; UNDRITSOV, M.I., dotsent

Professor Andrei Dmitrievich Ado. Arkh.pat. 18 no.6:139-140 '56.  
(MLRA 9:12)

(ADO, ANDREI DIMITRIEVICH, 1909- )

*MALININ, A. I.*

3-8-27/34

AUTHOR: Veyakikh, A.S., Professor, Doctor of Agricultural Sciences  
Malinin, A.I., Professor, Doctor of Veterinary Sciences,  
Novikov, V.A., Professor, Doctor of Biologic Sciences

TITLE: Agricultural Vuzes of People's Poland (Sel'skokhozyaystvennyye  
vuzy narodnoy Pol'shi)

PERIODICAL: Vestnik Vysshey Shkoly, 1957, # 8, pp 84-86 (USSR)

ABSTRACT: The article contains particulars on the agricultural  
education and scientific work of veterinary and agricultural  
institutes in Poland.

There are 7 agricultural vuzes (Warszawa, Poznan', Wroclaw,  
Krakov, Lyublin, Olsztyn' and Szczecin ) with more than 16,000  
students. The Warsaw Main Higher Agricultural School (Varshavs-  
kaya glavnaya vysshaya sel'skokhozyaystvennaya shkola) is the  
largest with faculties covering: agriculture, gardening,  
zootechnics, veterinary medicine, water-melioration, forestry,  
agricultural mechanization, and economics. Admission to the  
schools is competitive for persons who have graduated from  
secondary schools. The majority of the students are farmers'  
children, 25 - 30% are children of workmen, and 10 - 20% are

Card 1/3



Agricultural Vuzes of People's Poland

3-8-27/34

descendants of city and village intellectuals. Study at the higher schools is free of charge. About 60% of the 1st-course and about 90% of the senior course students are recipients of scholarships.

The training lasts 5 years and graduates are granted a Master's degree. The total number of hours used in instruction is in Poland 4,395. The total vacation period for Polish veterinary students is 67 weeks. Attendance at lectures is optional beginning with the 1st course.

Much attention is paid to student practical training. The Warsaw Higher Agricultural School has 7 training farms with 3,500 ha of arable land and 400 ha of forests. The article gives particulars on the practical training of veterinary students. Until recently, graduates were assigned to positions, but now they can choose their own jobs. The number of students leaving the agricultural schools or shifting to other faculties is still rather high.

The article also contains particulars on the teaching personnel and on the possibilities for advancement. It furnishes information about scientific research, for which

Card 2/3

Agricultural Vuzes of People's Poland

3-8-27/34

conditions are good. The Polish professors stated that they are still without a textbook on genetics of agricultural animals. The results of scientific research by Polish scientists are printed and published in special collections.

AVAILABLE: Library of Congress

Card 3/3

MALININ, A.I. [Malynin, A.I.], prof.

Problem of the prevention of mastitis. Ped., akush. i gin. 20 no.2:  
50-52 '58. (MIRA 13:1)

1. Akusherskaya i ginekologicheskaya klinika (direktor - zasluzhennyy  
deyatel' nauki prof. A.I. Malinin) Odesskogo gosudarstvennogo meditsin-  
skogo instituta im. M.I. Pirogova (direktor - prof. I.Ya. Dayneka).  
(BREAST--DISEASES)

MALININ, A.I.

Partial substitution of blood in obstetric and gynecological practice.  
Trudy Kiev. nauch.-issl. inst. perel. krovi i neotlozh. khir. 3:10-11  
'61. (MIRA 17:10)

1. Akushersko-ginekologicheskaya klinika Odesskogo meditsinskogo  
instituta imeni Pirogova.

BELYAYEV, Ye.I., prof. [deceased]; BADYUK, Ye.Ye.; BOGOROV, I.I.,  
 prof.; BUBLICHENKO, L.I., prof. [deceased]; IL'IN, I.V.,  
 dots.; KEYLIN, S.L., prof.; MAZHBIT'S, A.M., prof.;  
 MALININ, A.I., zasl. deyatel' Kaz.SSR, prof.; MOSHKOV, B.N.,  
 prof.; NIKOLAYEV, A.P., prof.; PERSIANINOV, L.S., prof.;  
 POKROVSKIY, V.A., prof.; POLYAKOVA, G.P., kand. med. nauk;  
 RAFAL'KES, S.B., dots.; KHASKIN, S.G., prof.; SHTERN, I.A.,  
 prof

[Multivolume manual on obstetrics and gynecology] Mnogo-  
 tomnoe rukovodstvo po akusherstvu i ginekologii. Moskva,  
 Meditsina. Vol.3. Book 2. [Pathology of the labor and post-  
 natal period. Physiology and pathology of the newborn infant]  
 Patologiya rodov i poslerodovogo perioda. Fiziologiya i pa-  
 tologiya novorozhden'nogo. Pt.1. [Pathology of labor] Patolo-  
 giya rodov. 1964. 895 p. (MIRA 17:7)

1. Chlen-korrespondent AMN SSSR (for Persianinov). 2. Deystvi-  
 tel'nyy chlen AMN SSSR (for Nikolayev).

MALININ, A. N.

PA 16T98

USSR/Metals, Nonferrous  
Mineral Industries

May/Jun 1947

"Projected Increase in Mining of Nonferrous Metals," A. N. Malinin, Deputy Minister Non-ferrous Metallurgy for the USSR, 10 pp

"Tsvetnyye Metally" No 3

Increase in mining of metals, such as copper, during the first 6 months of 1947, in keeping with the goals set forth by the 5-Year Plan originated in 1946 for the increased mining of nonferrous metals.

16T98

MALININ, A.N.

Machining internal surfaces of stamping dies. Mashinostroitel'  
no.12:17 D '65. (MIRA 18:12)

KARMILOV, S.S.; MALININ, B.N.

Enclosing elements made of aluminum and plastics. Prom.  
stroitel. 39 no.11:20-25 '61. (MIRA 14:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy Akademii stroitel'stva i arkhitektury SSSR (for Karmilov).
2. Proyektstal'konstruksiya (for Malinin).  
(Building materials—Testing)



ORJISKIY, N.; REYNGOL'D, P.; MALININ, D.

Stand for wheel interchanging. Avt. transp. 43 no.1:15-17 Ja '65.  
(MIRA 18:3)

MALININ, G., general-leutenant

A weighty contribution to victory. Voen. Znan. 41 no.5:10-12 My  
'65. (MIRA 18:5)

MALININ, G., inzh.

Encouraging results. Okhr.truda i sots.strakh. no.2:72  
Fe '59. (MIRA 12:4)  
(Altai Territory--Industrial hygiene)

L 45293-66 EWT(1) RO

ACC NR: AP6021928 (A) SOURCE CODE: UR/0017/66/000/003/0019/0020

AUTHOR: Malinin, G.

ORG: none

TITLE: Measure of success [civil-defense training]

SOURCE: Voyennoye znaniya, no. 3, 1966, 19-20

TOPIC TAGS: civil defense, civil defense training, civil defense personnel

ABSTRACT: The author stresses the need for more initiative and better organization in the work of civil defense staffs. Schedules for training courses should be adapted to local conditions. For example, rural areas, they should be scheduled for the fall or winter months, whereas in industrial enterprises they could be scheduled at any time. The location of shelters should also be considered carefully. Coal mines can shelter many people, but they must first be found to be free of poisonous gas. There is much need of initiative in the civil defense system. A general directive to build cellars for civil defense in all

Card 1/3

L 45293-66

ACC NR:

AP6021928

rural areas, if left to individual initiative, could result in most cellars being built directly under dwellings, and thus being vulnerable in case of fire. Unsystematic construction could also result in poor ventilation, inadequate size, etc. A civil-defense leader could start by asking a planning organization for standard cellar designs, to be followed in future construction. Dissemination of civil-defense knowledge should also be more widespread. People need guidance in selecting literature on civil defense, and while public libraries could be of great assistance, librarians generally know little about civil defense. Control of civil-defense activities is carried out largely on paper, but improvement has always been possible when enough interest has been manifested by civil-defense staffs. In some areas of the Tambovskaya Oblast, civil-defense leaders regularly report by telephone to the civil-defense chief on the progress of the 19-hr civil-defense courses. During visits to the Oblast center on official business, they know they are expected to report on civil-defense exercises. In a series of oblasts, the local radio reports the achievements of the outstanding civil-defense instructors to the local population. The author

Card 2/3

L 45293-66

ACC NR:

AP6021928

concludes his article with the remark that Party organs should likewise be consulted because of their experience in organizational work. [GC]

SUB CODE: 05, 15, 17/ SUBM DATE: none/

Card 3/3 *bdh*

PHASE I BOOK EXPLOITATION 1132

Levin, M.Ye., Malinin, G.A., Mandrazhitskiy, M.N., Sinitsyn, V.P. and  
Fedorov, V.I.

Zashchita ot sredstv massovogo porazheniya (Defense Against Weapons of Mass  
Destruction) Moscow, Uchpedgiz, 1958. 181 p. 100,000 copies printed.

Eds. (Title page): Sinshchyn, V.P. Candidate of Technical Sciences and Malinin, G.A.  
Ed. (Inside book): Lavrovskiy, K.F.; Tech. Ed: Natapov, M.I.

PURPOSE: This book is intended for public instructors of the PVO DOSAAF  
(Antiaircraft Defense Unit of the All-Union Voluntary Society for the  
Promotion of the Army, Aviation and Navy).

COVERAGE: This book includes general information on atomic, chemical and bacteri-  
ological weapons and measures for individual and collective protection from them.  
The various authors contributed to the text as follows: M.Ye. Levin wrote Chap-  
ters 1,2,3,4 and 6; M.N. Mandrazhitskiy - Chapters 7,8 and 9; G.A. Malinin -  
Chapter 10; V.P. Sinitsyn - Chapters 11, 12, and 14; and V.I. Fedorov - Chapter 5.  
Card 1/3

Defense Against Weapons (Cont.)

1132

There are no references

TABLE OF CONTENTS:

Introduction	3
Ch. 1. Modern Means of Air Attack	5
Ch. 2. Atomic Weapons and Their Destructive Force	16
Ch. 3. Impact, Fragmentation and Incendiary Means of Destruction	43
Ch. 4. Chemical Weapons and Their Destructive Effect	53
Ch. 5. Bacteriological Weapons and Their Destructive Effect	62
Ch. 6. Individual Means of Protection	74
Ch. 7. Collective Means of Protection	90
Ch. 8. The Protection of Food Products, Water and Forage From Contamination by Poison Gases, Radioactive Substances and Bacterial Agents	103
Card 2/ 3	



Defense Against Weapons (Cont.)

1132

Ch. 9. Problems and Organization of Local Antiaircraft Defense for  
Dwellings, Enterprises, Institutions, State Farms and Collective  
Farms

Ch. 10. Surveying Destruction Centers

119

Ch. 11. Emergency-rescue Work in a Destruction Center

135

Ch. 12. Fire-prevention Measures and the Extinguishing of  
Flare-ups and Fires

142

Ch. 13. Means and Methods of Deactivation, Degasification and  
Disinfection

151

Ch. 14. Duties of Civil Defense Personnel on the Sounding of Local  
Antiaircraft Defense Signals

173

AVAILABLE: Library of Congress  
Card 3/3

TM/gmp  
1-20-59

MALININ, G A.

PHASE I BOOK EXPLOITATION

SOV/4103

Levin, Moisey Yevseyevich, Georgiy Andreyevich Malinin, Mikhail Nikolayevich Mandrazhitskiy, Valentin Petrovich Sinitsyn, and Valeriy Ivanovich Fedorov

Zashchita ot sredstv massovogo porazheniya (Protection Against Means of Mass Destruction) 2nd ed. Moscow, Uchpedgiz, 1960. 176 p. 50,000 copies printed.

General Ed.: V. P. Sinitsyn, Candidate of Technical Sciences, and G. A. Malinin. Ed.: A. A. Korotkiy; Tech. Ed.: R. V. Tsypko.

PURPOSE: This book is intended for the public instructors of PVO DOSAAF (Air Defence Organization under the All-Union Voluntary Society for the Promotion of the Army, Aviation and Navy).

COVERAGE: The book gives fundamental information on atomic, chemical, and bacteriological weapons and on means of individual and collective protection. It states that the problem has been studied sufficiently and that at the present time adequate means of protection exist for a well-organized and trained population.. No personalities are mentioned. There are no references.

Card 1/3

Protection Against Means of Mass Destruction

SOV/4103

TABLE OF CONTENTS:

Introduction	3
Ch. 1. Modern Means of Attack From the Air	5
Ch. 2. Atomic Weapons and Their Casualty Effect	15
Ch. 3. High-Explosive, Fragmentation, and Incendiary Weapons	41
Ch. 4. Chemical Weapons and Their Casualty Effect	51
Ch. 5. Bacteriological Weapons and Their Casualty Effect	59
Ch. 6. Protective Equipment for the Individual	71
Ch. 7. Protective Equipment for Groups	86
Ch. 8. Protection of Food, Water, and Forage Against Contamination by Poisonous, Radioactive, or Bacteriological Substances	99

Card 2/3

Protection Against Means of Mass Destruction

80V/4103

- Ch. 9. Tasks and Organization of the Local Air Defense Relative to Dwellings, Establishments, Institutions, and State and Collective Farms. Rules of Conduct and Action for the Population According to the Signals of the Local Air Defense 103
- Ch. 10. Reconnaissance of Stricken Areas 110
- Ch. 11. Emergency and Rescuing Operations in Stricken Areas 130
- Ch. 12. Fire Prevention Measures; Extinguishing Fires in Progress and Breaking Out 136
- Ch. 13. Methods and Means of Decontamination; Degassing and Disinfection 145
- Ch. 14. Duties of Personnel of Self-Defense Groups Responding to Signals Given by the Local Air Defense 166

AVAILABLE: Library of Congress (UA926.I38 1960)

Card 3/4

AC/rn/ec  
8-25-60

MALININ, Georgiy Aleksandrovich; KORKINA, V., red.; LUKASHEVICH, V.,  
tekhn. red.

[Academician Bardin.] Akademik Bardin. Saratov, Saratovskoe  
knizhnoe izd-vo, 1963. 69 p. (MIRA 16:7)  
(Bardin, Ivan Pavlovich, 1883-1960)

MOROSHKINA, T.M.; MALININ, G.F.

Spectrochemical determination of small amounts of aluminum and silicon in niobium pentoxide. Zhur.anal.khim. 16 no.2:245-247  
Mr-Apr '61. (MIRA 14:5)

1. Zhadanov Leningrad State University.  
(Aluminum—Spectra)  
(Silicon—Spectra)  
(Niobium oxide—Spectra)

*Malinin, G.G.*  
MALININ, G.G.

Brigades of creative cooperation at the Comintern Plant. Izobr.v  
SSSR 2 no.12:29-32 D '57. (MIRA 10:12)  
(Leningrad--Leather industry)

MAL'TSEV, G.Z.; MALININ, G.V.; MASHOVETS, V.P.; SHCHERBAKOV, V.A.

Thermodynamic properties and nuclear magnetic resonance spectra of  
H<sup>1</sup> and Na<sup>23</sup> of caustic soda solutions. Zhur. struk. khim. 6 no.3:371-  
377 My-Je '65. (MIRA 18:8)

L. Leningradskiy tekhnologicheskii institut imeni Lensovetu i  
Radiyevyy institut imeni V.G.Khlopina.



MAL'ISEV, G.Z.; MALININ, G.V.; MASHOVETS, V.P.

Structure of aluminate solutions. Zhur. struk. khim. 6 no.3:372-  
383 My-Je '65. (MIRA 18:8)

1. Leningradskiy tekhnologicheskii institut imeni Lenskova i  
Radiyevyy institut imeni V.G.Khlopina, Leningrad.

MALININ, I. D.

Peat Industry

My experience in operating a UPF machine. Torf. prom. 30, No. 4, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

MALININ, K.

In cooperation with the administration. Okh. truda i sots. strakh.  
no.6:63 Je '59. (MIRA 12:10)

1.Obshchestvennyy inspektor okhrany truda, Tomskaya oblast'.  
(Tomsk Province--Forestry engineering--Hygienic aspects)

L 26381-66

ACC NR: AP6007684

SOURCE CODE: UR/0413/66/000/003/0062/0063

AUTHORS: Levin, G. L.; Malinin, K. B.

ORG: none

TITLE: Drafting device for laying out graphs of intermediate functions according to given graphs of boundary functions. Class 42, No. 178493

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 62-63

TOPIC TAGS: plotting board, drafting, engineering drawing

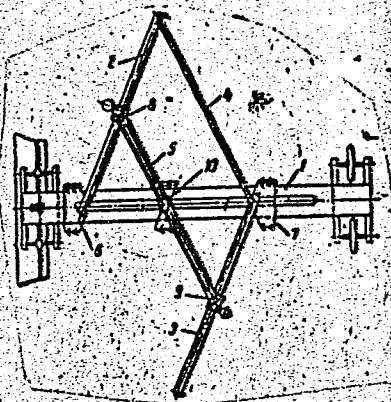
ABSTRACT: This Author Certificate describes a drafting device for laying out graphs of intermediate functions according to given graphs of boundary functions. The device features interlinked guide and scriber pins. For simplification of construction, the guide and scriber pins are joined by a system of rods which jointly make up a planar five-member unit mounted on a variable control line of a drafting table. Two rods are end-fastened in the unit by guide bars on the control line. The third and fourth bars are linked (see Fig. 1) with the free ends of the first two and with their guide bars. The fifth bar is linked with the first and second by adjustable hinges, each of which has a guide pin. The center of the

UDC: 744.346

L 26381-66

ACC NR: AP6007684

Fig. 1. 1 - control line; 2-5 - arms of pentagon; 6 and 7 - guide bars of the arms; 8 and 9 - adjustable hinges holding the guide pins; 10 - guide bar holding the scriber pin.



scriber pin divides the distance between the centers of the pins of the first and second bars in a constant given ratio. Orig. art. has: 1 figure.

SUB CODE: 14/ SUBM DATE: 10Jan64

Cont 2/2 66

MALININ, K. M.

"Veterinary Science and progressive experience into the kolkhoz masses."

SO: Vet. 28 (8) 1951, p. 7

Hero of Socialist Labor, Cand. of Vet. Sciences

MALININ, K. M.

"Organization of Veterinary servicing on kolkhozes," Moscow, Sel'khozgiz, 1952,  
56 pages with illustrations.

SO: Vet., Nov. 1952, Unclassified.

(The author describes his progressive experience in agriculture)

Review of this work filed in his dossier.

1. MALININ, K. [M.]
2. USSR (600)
4. Stock and Stockbreeding
7. Winter prophylactic measures on the farm. Kolkh.proizv. 12 no.10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.



MALININ, E.M., kandidat veterinarnykh nauk.

Effect of zsehygienic conditions on the course and aftereffects  
of foot-and-mouth disease in cattle. Veterinariia 33 no.1:66-69  
Ja '56. (MLBA 9:4)

1.Vsesoyuznyy institut eksperimental'noy veterinarii.  
(FOOT-AND-MOUTH DISEASE)

**FLEGMATOV, N.A., professor.; MALININ, K.M., geroy sotsialisticheskogo truda  
kandidat veterinarnykh nauk.**

**New material on the history of veterinary education "Uchenye zapiski"  
of the Kazan State Veterinary Institute. Reviewed by N.A. Flegmatov,  
K.M. Malinin). Veterinariia 33 no. 10:88-89 O '56.**

**(MLRA 9:10)**

**(Kazan--Veterinary colleges--History)**

MALININ, K. M. *Cand. Vet. Sci.*

"Cattle farms are to be given the most perfect ventilation system."

Veterinariya, Vol. 37, No. 7, 1960, p. 17

*Hero Socialist Work, Honored Vet. Dr., RSFSR,*

MALININ, Kallinik Mikhaylovich, Geroy Sotsialisticheskogo Truda,  
zasl. veterinarnyy vrach RSFSR, kand. veter. nauk; USACHEVA,  
I.G., red.; PEVZNER, V.I., tekhn. red.

[A half century as a veterinarian] Polveka na postu veterinar-  
nogo vracha. Moskva, Izd-vo sel'khoz. lit-ry, zhurnalov i pla-  
katov, 1961. 174 p. (MIRA 15:3)  
(Malinin, Kallinik Mikhailovich, 1882- )

KUROPOV, V.M., prof.; KALUGIN, V.I., kand.veterin.nauk; MALININ, K.M., kand.  
veterin.nauk, Geroy Sotsialisticheskogo Truda, zasluzhennyy  
veterinarnyy vrach RSFSR; KNYAZEVSKIY, A.V.

From the history of veterinary medicine. Veterinariia 41 no.8:11/-  
116 Ag '64. (MIRA 184)

MALININ, L.; NORSHTEYN, I.

Requirements of diesel automobile used in northern areas. Avt.  
transp. 37 no.3:46 Apr '59. (MIRA 12:4)  
(Automobiles--Engines (Compressed gas))

PROTASOV, V.R.; DAPKOV, A.A.; MALININ, L.K.

"Visual images" in the recognition and identification of objects.  
Izv. AN SSSR. Ser. biol. 31 no.1:50-75 1967 16p.

(MIRA 1967)

1. Institut morfologii zhivotnykh im. L.N. Severtsova AN SSSR.  
Submitted April 8, 1966.

L 08461-67 EWP(j)/EWT(m) LJP(c) RM

ACC NR: AP6030854 (A,N)

SOURCE CODE: UR/0191/66/000/009/0047/0049

AUTHOR: Malinin, L. N.; Yakunina, K. F.

ORG: none

TITLE: Degradation and stabilization of cellulose acetobutyrate

SOURCE: Plasticheskiye massy, no. 9, 1966, 47-49

TOPIC TAGS: polymer degradation, cellulose plastic, UV absorption, light aging, anti-oxidant additive, stabilizer

ABSTRACT: The kinetics of photodegradation and photostabilization of cellulose acetobutyrate (CAB) containing 40-43% and 26-27% butyric acid were studied on thoroughly dried films 100-110  $\mu$  thick obtained from 15% acetone solutions. The films containing various photostabilizers and antioxidants were exposed to UV light in an AIPST-2-4-2 apparatus at 50-60°C and a humidity of 50-60%. Viscometric measurements were made on 0.25% acetone solutions with an Ostwald viscometer. An extensive degradation of CAB was observed after 24 hr. The change in the relative viscosity of CAB was determined for each additive, and the change in the molecular weight was plotted against the duration of exposure in the AIPST-2-4-2 apparatus. Resorcinol monobenzoate and hydroquinone monobenzoate proved to be the best stabilizers. Orig. art. has: 4 figures, 1 table and 1 formula.

Card 1/2

UDC: 678.544.64:[678.019.36:535-31



L 08461-67

ACC NR: AP6030854

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 010

na/  
Card 2/2

L 08908-67 EMT(m)/EMT(j) RM

ACC NR: AF6023063

(A)

SOURCE CODE: UR/0191/66/000/004/0029/0030

AUTHOR: Malinin, L. N.

27

ORG: none

TITLE: Stabilization of cellulose acetobutyrate during reprocessing

SOURCE: Plasticheskiye massy, no. 4, 1966, 29-30

TOPIC TAGS: cellulose plastic, antioxidant additive, solid viscosity, optic density

ABSTRACT: The activity of various antioxidant additives in cellulose acetobutyrate were studied during plastographic and viscosimetric reprocessing. The experiments were made on a standard cellulose acetobutyrate composition containing dioctyl phthalate, dibutyl sebacinate, and triphenyl phosphate, and using 1/120 weight part of one of the eleven antioxidants studied: polyphosphide, bis-4,4'-(1-hydroxy-2-methyl-6-tert-butylphenyl)methano, bis-4,4'-(1-hydroxy-6-tert-phenyl)sulfide, mercaptobenzimidazole, 2,5-di(tert-butyl)hydroquinone, octyl gallate, alkyl gallate, 2,6-bis(2-hydroxy-3-isobornyl-5-methylbenzyl)-4-methylphenol, isobornylmethylphenol, 2,5-di(tert-amyl)hydroquinone, 2,6-methylbenzyl-4-methylphenol, and 1,1-bis(4-hydroxyphenyl)cyclohexane. The mixture was processed in a rotary platograph at 170C for 23-25 mins. and the plastic obtained was submitted either to injection or to die casting. A change in viscosity and optical density of the plastic composition was recorded

Card 1/2

UDC: 678.544.64.048

L 08908-67

ACC NR: AP6023063

during processing. The best antioxidant agents were 2,6-methylbenzyl-4-methylphenol and 1,1'-bis(4-hydroxyphenyl)cyclohexane. They caused only an insignificant change of specific viscosity and optical density of the plastic. Orig. art. has: 3 fig. and 1 table.

SUB CODE: 0711/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 005

Card 2/2 *pln*

MALININ, M.S., inzh.; NOVIK, V.M., inzh.

Increasing the operative efficiency of pulverized coal feeders.  
Energetik 10 no.10:11-12 0 '62. (MIRA 15:12)  
(Coal, Pulverized)

MATUSHEVSKIY, Ye.V., inzh.; MALININ, M.S., inzh.; OSTROVETSKIY, R.M., inzh.;  
FOMIN, A.V., inzh.; TSYMBAL, V.G., inzh.; CHESNOKOV, M.V., inzh.;  
SHAMARAKOV, D.Ya., inzh.

Start of the K-200-130-1 turbine with PT-100 drum boiler from a cold  
state. Elek. sta. 35 no.9:29-34 S '64.

(MIRA 18:1)

S/053/60/071/03/05/008  
B006/B063

AUTHORS: Grabovskiy, M. A., Malinin, M. V., Usagin, S. I.

TITLE: The Lecture Rooms and the Demonstration Rooms for Physics  
of Moscow State University

PERIODICAL: Uspekhi fizicheskikh nauk, 1960, Vol. 71, No. 3, pp. 515-524

TEXT: The article gives a description of the lecture rooms and the demonstration rooms in the new building of the fizicheskii fakul'tet MGU (Department of Physics of Moscow State University) and briefly deals with the teaching and research program. The new building stands on the Lenin

Hills and covers an area of 28,000 m<sup>2</sup>. Its front has a length of 228 m. On the sides of the main entrance there are two statues representing the famous Russian physicists A. G. Stoletov and P. N. Lebedev. Besides numerous laboratories, rooms for practical work, and a library, the building has three large physical lecture rooms and demonstration rooms. Elevation and ground plan of these rooms are shown in Figs. 1 and 2. The central auditorium is 21.6 m long, 18 m wide, and 11.4 m high. The two

Card 1/2

The Lecture Rooms and the Demonstration Rooms  
for Physics of Moscow State University

S/053/60/071/03/05/008  
B006/B063

side walls have six windows each, with a total area of  $83 \text{ m}^2$ . The equipment of the rooms is described in detail. Fig. 3 shows the two desks, the blackboard, and the projection screen. The doors open into the demonstration rooms. The central auditorium has 530 seats, and the two side rooms (north and south) 300 each. A partial view of one of the demonstration rooms is shown in Fig. 4. The apparatus and objects for demonstration were collected and arranged by N. A. Lyubimov, A. G. Stoletov, N. A. Umov, I. F. Usagin, S. I. Vavilov, G. S. Landsberg, V. G. Tikhonov, M. V. Kolbanov, A. B. Mlodzeyevskiy et al. At present, the demonstration rooms have 1795 instruments. The building also contains a workshop covering  $30 \text{ m}^2$ . The final part of the present paper is devoted to problems of organization, teaching, and teaching methods at the demonstration rooms which are administered by the kafedra obshchey fiziki (Chair of General Physics). The curriculum includes courses, lectures, and practical training. The following persons are mentioned in this connection: A. B. Mlodzeyevskiy (deceased), M. A. Grabovskiy, S. I. Usagin, Professors K. P. Yakovlev, K. F. Teodorichik, S. E. Khaykin, S. G. Kalashnikov, V. I. Iveronova, S. P. Strelkov, R. V. Telesnin, I. K. Kikoin, and I. A. Yakovlev. There are 4 figures.

Card 2/2

**MALININ, N.I.**

Work of the Rheology Section of the Conference on the theory of elasticity, theory of plasticity and theoretical topics on structural mechanics at the Institute of Mechanics of the Academy of Sciences of the U.S.S.R. and the Department of Mechanics and Mathematics of the M.V. Lomonosov Moscow State University, held December 22-26, 1954. Koll. zhur. 17 no.4:332-336 J1-Ag'55. (MLRA 8:11)  
(Theory of elasticity) (Rheology)



15-57-5-6634D

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,  
p 134 (USSR)

AUTHOR: Malinin, N. I.

TITLE: Rheological Investigations of Dried Peat (Reologicheskiye issledovaniya torfa ponizhennoy vlazhnosti)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Mosk. torf. in-t. (Moscow Peat Institute), Moscow, 1956.

ASSOCIATION: Mosk. torf. in-t. (Moscow Peat Institute)

Card 1/1

MALININ, N. I.

ZAV'YALOV, V.A., kandidat tekhnicheskikh nauk; MALININ, N.I., inzhener.

Some problems of pressing lignite and other loose materials. Ugol'  
32 no.3:33-35 Mr '57. (MLRA 10:5)  
(Lignite)  
(Briquets (Fuel))

AUTHORS: Volarovich, M.P.; Malinin, N.I. 69-20-3-9/24

TITLE: Investigation of Rheological Properties of Low Moisture Peats  
(Issledovaniye reologicheskikh svoystv torfov ponizhennoy  
vlazhnosti)

PERIODICAL: Kolloidnyy zhurnal, 1958, vol XX, Nr 3, pp 311-317 (USSR)

ABSTRACT: The rheological properties of peats have been studied by measuring the shear between two parallel plates, by using the viscosimeter RV-4, and by the method of cylinder compression. Complete rheological diagrams were obtained, representing a series of curves of the development of deformation (in the coordinates, deformation - time) at constant stress and following removal. The existence of two types of complete rheological diagrams has been established. Diagram type I is observed in peat of plastic consistency which bears considerable deformations during stresses surpassing the static stress of the shear. The speed in this case is relatively high, but the flow is continuous. In Diagram type II, observed in peats of semi-solid consistency, there is no significant plastic flow. For peats of Diagram I, the Shvedov viscosity may be computed at low speed gradients and the plastic (Bingham) viscosity at high speed gradients.

Card 1/2

69-20-3-9/24

Investigation of Rheological Properties of Low Moisture Peats

The deformational properties of peat are described with the aid of 7 structural and mechanical parameters. There are 6 graphs, and 29 references, 24 of which are Soviet and 5 English.

ASSOCIATION: Moskovskiy torfyanoy institut, Kafedra fiziki (Moscow Peat Institute, Chair of Physics)

SUBMITTED: November 13, 1957

Card 2/2

1. Peat—Properties    2. Viscosimeters—Applications

Report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics,  
Moscow, 27 Jan - 3 Feb '60.

164. A. I. Lomov (Moscow): On the bending of columns under the influence of a point load.
165. V. B. Lomov (Moscow): Viscoplasticity at room temperature.
166. V. B. Lomov (Moscow): Plasticity of metals under combined loading.
167. A. I. Lomov (Moscow): Some problems of non-stationary flow of incompressible viscoplastic (Maxwell) liquids.
168. A. I. Lomov, A. B. Ruzhin (Moscow): Some problems of quasi-steady flow of an incompressible viscoplastic (Maxwell) liquid.
169. A. I. Lomov (Moscow): The generalization of the torsion theory of anisotropic bodies.
170. A. I. Lomov, V. V. Ruzhin (Moscow): The development of anisotropy.
171. The A. I. Lomov (Moscow): Plastic flow of cylindrical plates under combined loading and bending.
172. A. I. Lomov (Moscow): Torsion of an anisotropic body.
173. A. I. Lomov (Moscow): Free vibrations and stability of a plate under combined loading.
174. A. I. Lomov (Moscow): Displacement of rods in the direction of anisotropy.
175. A. I. Lomov (Moscow): On the application of matrix methods to the solution of problems of linear equations of elasticity theory.
176. A. I. Lomov (Moscow): The solution of critical parameters for structures of equal stability consisting of plates and rods.
177. A. I. Lomov (Moscow): Large deflections of shallow shells of non-linear elastic materials.
178. A. I. Lomov (Moscow): Methods for the solution of the problems of anisotropic plates of stress in shells of anisotropic bodies.
179. A. I. Lomov (Moscow): Analysis of an orthotropic structure under load.
180. A. I. Lomov (Moscow): On the experimental study of stresses in plates and shells.
181. A. I. Lomov (Moscow): Creep strains and rupture of cylindrical shells.
182. A. I. Lomov (Moscow): Vibration of non-circular cylindrical shells.
183. A. I. Lomov (Moscow): Some problems of combined loading of anisotropic bodies.
184. A. I. Lomov (Moscow): The influence of structural anisotropy on the strength of a plate.
185. A. I. Lomov (Moscow): Investigation of the state of stress in a square prism with circular cylindrical holes under internal pressure.
186. A. I. Lomov (Moscow): Bending of plates and shells under combined loading.
187. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
188. A. I. Lomov (Moscow): Stress and strain in anisotropic bodies.
189. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
190. A. I. Lomov (Moscow): The design of finite and infinite plates under combined loading.
191. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
192. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
193. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
194. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
195. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
196. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
197. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
198. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
199. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.
200. A. I. Lomov (Moscow): The problem of combined loading of a cylindrical shell in bending.

MALININ, N.I.

Mechanism of the fatigue relaxation of high polymers. Izv.Sib.  
otd.AN SSSR no.1:33-40 '60. (MIRA 13:7)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR.  
(Plastics--Fatigue)

IVANOVA, R.Ya. (Novosibirsk); MALININ, N.I. (Novosibirsk)

Dependence of the ultimate strength of dispersed systems on the  
rate of application of the load. PMTF no.1:125-129 Ky-Je '60.  
(MIRA 14:8)

(Strength of materials)

MALININ, N. I.

On the Weissenberg effect. Koll. zhur. 22 no.2:201-210 Mr-Apr  
'60. (MIRA 13:8)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR,  
Novosibirsk. (Colloids) (Strains and stresses)



MALININ, N.I. (Novosibirsk)

Creep and relaxation of high polymers in the transitory state.  
PMTF no.1:56-65 Ja - F '61. (MIRA 14:6)  
(Creep of plastics) (Polymers)

S/207/62/000/006/018/025  
E081/E135

AUTHOR: Malinin, N.I. (Novosibirsk)

TITLE: Creep of a reinforced layer in biaxial tension

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki,  
no.6, 1962, 109-114

TEXT: An essential feature of reinforced materials is the difference in properties of the reinforcement and the connecting material. If the reinforcement (glass or steel) is elastic but the connecting material (high polymer or concrete) shows creep properties, the reinforced material as a whole will show creep behaviour, which may also be anisotropic in nature. In the present paper, the appropriate two-dimensional stress-strain equations are established, allowing for the difference in properties between the reinforcement and the connecting material. The creep problem is then dealt with according to the theories of ageing, of flow, and of hardening, assuming a hyperbolic sine creep law. The extension of the treatment to elastic after-effect is indicated; in the case of a constant applied load, all three theories give

Card 1/2

Creep of a reinforced layer in ...

S/207/62/000/006/018/025  
E081/E135

practically the same law for the redistribution of stress between the reinforcement and connecting material. Tests were carried out in simple extension on the glass fibre reinforced plastic material and showed good agreement with experiment. There are 4 figures.

SUBMITTED: March 20, 1962

Card 2/2

S/032/62/028/004/022/026  
B124/B101

AUTHORS: Bayev, L. V., Malinin, N. I., Rabotnov, Yu. N., and Shubin, I. A.

TITLE: Device for creep and relaxation testing of plastics

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 4, 1962, 498 - 500

TEXT: A testing device based on the loading of a lever is described. The size of the plastic specimens is 55 - 100 mm length, 1 - 10 mm thickness. The load of the lever can be changed between 0 to 200 or 500 kg. An improved model of the device for breaking load up to 1500 kg was tested. The loading limits are changed by replacing the lever with 1:10 arm ratio by a lever with ratio 1:4. For relaxation tests the loading is replaced by a spring. The device can be adjusted for constant temperature. No compensation for dynamometer deformation during the relaxation test is provided. Tests of KACT-B (KAST-V) glass-reinforced plastic show low creep (0.5% at 10 kg/cm<sup>2</sup>) along the warp, and higher creep (3% at 7 kg/cm<sup>2</sup>) at an angle of 45° to the warp. There are 3 figures. ✓


Card 1/2

Device for creep ...

S/032/62/028/004/022/026  
B124/B101

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR  
(Institute of General and Inorganic Chemistry of the Academy  
of Sciences UkrSSR)

Card 2/2



MALININ, N.I. (Novosibirsk)

Creep deformation of a reinforced layer under biaxial tension.  
PMTF no.6:109-114 N-D '62.

(MIRA 16:6)

(Creep of materials)

RABOTNOV, Yu.N., akademik, otv. red.; MALININ, N.I., kand. tekhn.  
nauk, otv. red.; MAZARYANTS, T.M., red.

[Creep and stress-rupture strength] Polzuchest' i dlitel'-  
naya prochnost': 'rudy. Novosibirsk, Izd-vo Sibirskogo otd-  
niia AN SSSR, 1963. 198 p. (MIRA 17:7)

1. Vsesoyuznoye soveshchaniye po teorii raschetov na polzu-  
chest' i dlitel'nuyu prochnost'. Novosibirsk, 1962.

DANILOV, N.S. (Novosibirsk); KUPRIYENKO, P.L. (Novosibirsk);  
MALININ, N.I. (Novosibirsk); RABOTNOV, Yu.N. (Novosibirsk);  
SHUBIN, I.A. (Novosibirsk)

Program-controlled machine for investigating deformations  
of plastics under complexly stressed state conditions. Izv.  
AN SSSR. Mekh. i mashinostr. no.6:20-24 N-D '63.  
(MIRA 17:1)



ACCESSION NR: AR4039334

S/0277/64/000/003/0022/0022

SOURCE: Ref. zh. Mashinostr. mat. konstr. i raschet detal. mash. Otd. vy\*p.,  
Abs. 3.48.160

AUTHOR: Malinin, N. I.

TITLE: Creep in plastics

CITED SOURCE: Sb. Polzuchest' i dlital'n. prochnost. Novosibirsk, Sib. Otd.  
AN SSSR, 1963, 134-139

TOPIC TAGS: plastic, reinforced plastic, deformation property, creep, anisotropy

TRANSLATION: Overall characteristics of the deformation properties of plastics,  
the relationships of prognostic and deformation properties to temperature, and the  
anisotropy of the properties of reinforced plastics are given.

DATE ACQ: 22Apr64

SUB CODE: MT

ENCL: 00

Card 1/1

ACCESSION NR: AP4041188

S/0207/64/000/003/0016/0023

AUTHOR: Malinin, N. I. (Novosibirsk)

TITLE: Theory of anisotropic creep

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1964, 16-23

TOPIC TAGS: creep, anisotropic creep, mechanical stress, monocrystal, reinforced plastic, reinforced concrete, creep deformation, stress distribution, plasticity, fiberglass, fiberglass AG 4S

ABSTRACT: The author studies anisotropic creep (manifested under the influence of mechanical stresses in monocrystals at high temperatures) in reinforced plastic, reinforced concrete, etc. In such studies it is necessary to estimate the amount of creep deformation in order to find the stress distribution in a body. Certain possible variants of writing the equations of anisotropic creep are studied. There are generalizations of the equations of anisotropic plasticity and, on the other hand, generalizations of the dependencies of isotropic creep. The author experimented on compressed fiberglass AG-4S (equi-stable) at a temperature of 30° C in trials lasting 2 to 6 full days. In these experiments, the eight-channel tensometric assembly SANCH-7M is used. It is established that the dependence of

Card 1/2

ACCESSION NR: AP4041188

creep deformations on time for constant stresses can be expressed by the formula

$$\epsilon^e = C\sigma^{\phi} t^{\psi} \quad (1)$$

where C is a parameter dependent on the stresses  $\sigma$  and the angles  $\phi$  and  $\psi$ . Curves of creep for gradually changing loads are given in a graph. Analogous computations were also made for the theories of aging and flow. Here the author obtained the known result that these theories satisfactorily describe the process of creep only for smoothly varying loads. For abruptly changing loads, these theories deviate significantly from the experimental results. Orig. art. has: 3 figures and 21 formulas.

ASSOCIATION: none

SUBMITTED: 25Dec63

SUB CODE: AS

NO REF SOV: 014

ENCL: 00

OTHER: 008

Card 2/2

L 24117-65 EPA(s)-2/EWT(m)/EPF(c)/EPR/LWP(j)/T Pc-4/Pr-4/Ps-4 WW/RM

ACCESSION NR: AP5002867

5-13 S/0207/64/000/005/0075/0082

AUTHORS: Dolgov, A. V. (Novosibirsk, Moscow); Malinin, N. I. (Novosibirsk, Moscow)

TITLE: On polymer creep in the glassy state

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1964, 75-82

TOPIC TAGS: fiberglass, Volterra integral equation, creep deformation, deformation rate, amorphous polymer, elasticity/ N 700 oscilloscope

ABSTRACT: The deformation properties of amorphous fiber glass polymers were studied analytically and experimentally, using the stress-strain integral equation

$$\epsilon = \frac{\sigma}{E} + \int_0^t (t - \theta) \sigma(\theta) d\theta$$

This equation is subsequently modified to yield a nonlinear Volterra equation of the type

$$\epsilon = \frac{\sigma}{E} \int_0^t K(\sigma, t - \theta) d\theta$$

The material under study was unplasticized polyvinylchloride (PVC) at T = 190, and Card 1/3

L 24117-65

ACCESSION NR: AP5002867

the experiment was carried out on a programmed machine with magnetic loading. Three different methods were used to determine the "instantaneous" elasticity  $F(\sigma) = \sigma/E$ , and all three gave the same value for the modulus  $E$ . The creep deformation  $\epsilon(\sigma)$  versus  $t$  curves were plotted logarithmically with the empirical result  $\epsilon(\sigma) = A_1 t^n$ , where  $A_1$  and  $n$  are functions of the stress  $\sigma$ . This leads to the following expression for the kernel in the integral equation  $\epsilon$ :

$$\epsilon = \frac{\sigma}{E} + \int_0^t \frac{f_1(\sigma)}{(t-\theta)^{1/2}} d\theta$$

Experimental determination of  $f_1(\sigma)$  leads to a value given by  $A_2 \ln \sigma/\sigma_0$ , where  $A_2 = 1.64 \times 10^5$  and  $\sigma_0 = 1.086 \text{ kg/mm}^2$ . Curves were also obtained depicting  $\epsilon$  versus  $t$  where the load was increased in steps. For this purpose, the integral equation is written as a summation, and the calculated results agreed with the data points very favorably. A cyclic load-unload type deformation-time curve showed that under load-on conditions the creep deformation increases, whereas, for no-load conditions, it decreases. Orig. art. has: 14 formulas and 8 figures.

ASSOCIATION: none

Card 2/3

L 24117-65

ACCESSION NR: AP5002867

SUBMITTED: 10Jun64

ENCL: 00

0  
SUB CODE: MT, DC

NO REF SGV: 014

OTHER: 012

Card 3/3

ACCESSION NR: AP4041782

S/0191/64/000/007/0039/0042

AUTHOR: Bayev, L. V., Malinin, N. I.

TITLE: Elasticity and creep of AG-4S glass plastics

SOURCE: Plasticheskiye massy\*, no. 7, 1964, 39-42

TOPIC TAGS: glass plastic, glass plastic AG-4S, elasticity, creep, Poisson coefficient, laminate, orthotropic property, shear modulus, laminated plastic

ABSTRACT: The orthotropism of the elastic properties of AG-4S glass plastics was investigated on 10-25 mm wide and 3-4 mm thick test samples cut out from 250 x 250 mm laminates. In addition, the elastic constants were determined at room temperature. Formulas are given for the calculation of the elastic coefficients, such as the modulus of elasticity, Poisson coefficient, shear modulus and the modulus characterizing the effect of shear on the tensile strain. It was found that the elastic characteristics of a material of uniform strength do not depend on the width of the sample (4-30 mm), but depend in part on the thickness of the laminate. This is due to the fact that with a constant number of layers (all laminates had the same number of layers), the difference in thickness of the separate laminates is determined by the different relative amounts of glass fibers and

Card

1/2

ACCESSION NR: AP4041782

resins, which affect the elastic properties of the material. The values of the modulus of elasticity and Poisson coefficient are tabulated for different  $\Phi$  angles with respect to the direction of the fibers. The creep under tensile stress at 30 and 100C and at  $\Phi = 0^\circ$  and  $\Phi = 45^\circ$  was tested in samples 3-45 mm thick and 10-25 mm wide. At  $\Phi = 45^\circ$  the creep of glass plastics is more than 10 times as high as at  $\Phi = 0^\circ$ , i.e. the anisotropy of the creep of glass plastics is considerable. It was found that the creep of AG-4S glass plastics increases 1.5-2 times on heating from 30 to 100C at  $\Phi = 0$ . For samples cut out at an angle of  $45^\circ$ , the creep increases 3-4 times on heating. The creep for compressed plastics is ten times as great at 100C as at 30C. Orig. art. has: 5 figures, 2 tables and 6 formulas.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 011

OTHER: 001

2/2

Card



ACCESSION NR: AP4045025

S/0191/64/000/009/0044/0047

AUTHOR: Malinin, N. I.

TITLE: Investigation of the stress-rupture strength of AG-4S glass plastics

SOURCE: Plasticheskiye massy\*, no. 9, 1964, 44-47

TOPIC TAGS: glass plastic, stress rupture strength, static strength, AG-4S glass plastic

ABSTRACT: It has been demonstrated that the most probable value of the static strength of AG-4S glass plastics at room temperature is 44.5 kgs/cm<sup>2</sup> for linearly oriented samples and 29.6 kgs/mm<sup>2</sup> for randomly arranged samples. Taking these values as the 100% load, the strength of AG-4S glass plastic laminates was investigated in relation to the time of stress application. One sample was subjected to a stress equal to the short-term maximum strength and the time-to-fracture was registered. The other sample, cut from the same laminate, was subjected to decreasing stress. If the sample did not break after 7 days the experiment was interrupted. The time dependence of the stress-rupture strength is shown in Fig. 1 of the Enclosure. The cumulative and integral curves of the distribution of probabilities for the stress-rupture strength of linearly

Card 1/3

ACCESSION NR: AP4045025

oriented AG-4S plastics ( $t = 30C$ ,  $\varphi' = 0^\circ$ ) were also plotted. It was found that physical processes take place in the material under the influence of high temperature and mechanical stresses which have a strengthening effect. In view of the considerable variation in the experimental results, the experimental data were processed by statistical methods. Evaluation showed that under the prolonged influence of stress in AG-4S glass fiber extruded without tension at  $100C$ , the material is strengthened by approximately 40% as compared to its initial state. Orig. art. has: 3 figures and 5 formulas.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 01

SUB CODE: MT

NO REF SOV: 014

OTHER: 001

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2/3

ACCESSION NR: AP4045025

ENCLOSURE: 01

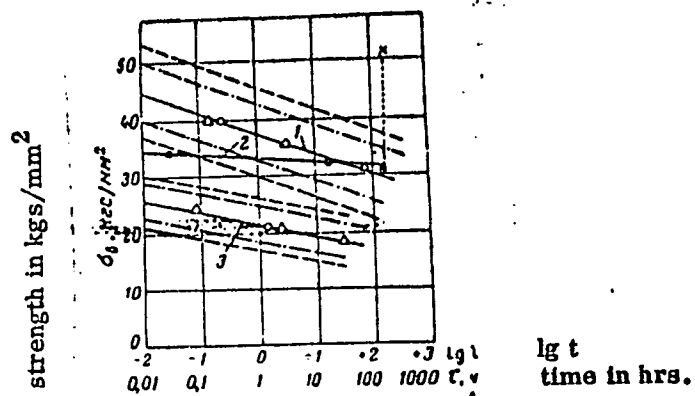


Fig. 1 - Stress-rupture strength of AG-4S glass plastics:

- 1 - unidirectional,  $T = 30^\circ\text{C}$ ; 2 - unidirectional,  $T = 100^\circ\text{C}$ ;
- 3 - uniform loading,  $T = 30^\circ\text{C}$ .

Card 3/3

L-6791-65 EWT(m)/EPF(c)/EPR/EWP(j)/T-2 Pc-4/Pr-4/Ps-4 WW/RM

ACCESSION NR: AP4046476

S/0032/64/030/010/1272/1273

AUTHORS: Ziling, N. G.; Malinin, N. I.TITLE: Apparatus for recording of strain diagrams of polymer films and sheet polymers

SOURCE: Zavodskaya laboratoriya, v. 30, no. 10, 1964, 1272-1273

TOPIC TAGS: strain diagram, material strength, polymer film, polymer deformation/  
AOL 21 kA motor

ABSTRACT: The authors developed an apparatus (see Fig. 1 on the Enclosure) for investigating deformation and durability of polymer films and sheet polymers in the temperature range -100 to +250C. In the figure, the specimen 1 in the form of a two-ply blade is held by upper and lower working clamps 2 and 3. Heating and cooling of specimens takes place by means of a foamed-plastic chamber 4, in which there are three metallic pipes 5, for cooling the upper, middle, and lower sections of the chamber respectively. Cooling is accomplished by liquid nitrogen. An AOL-21-kA motor supplies power delivered through worm gear 6, which in turn imparts vertical motion to screw 7 attached to clamp 3. The upper clamp 2 is connected by tie 8 and yoke 9 to plane spring 10, serving as a dynamometer and prepared in the

Card

1/3

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ACCESSION NR: AP4046476

form of a small cantilever beam with the conical support 11 on the end. The other support 12 is fixed to the upper plate 13. Deformations are measured by movement of still another support attached to rod 14 and firmly fixed to the lower clamp. Mirror 15 rests upon the conical supports and is held in place by a special spring. Illuminator 16 throws light on the mirror which reflects it upon film holder 17. Chamber 18 contains projecting apparatus for casting the deformation image of screen 19 for visual observation. Additional diagrams and descriptions are presented for adaptations permitting large deflections (up to 100 mm) and small deflections (2-10 mm). Measurement errors are less than 1%. Orig. art. has: 3 figures.

ASSOCIATION: Institut gidrodinamiki Sibirekogo otdeleniya Akademii nauk SSSR  
(Institute of Hydrodynamics, Siberian Department, Academy of Sciences SSSR)

SUBMITTED: 00

ENGL: 01

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

Card 2/3

L 6791-65

ACCESSION NR: APL046476

ENCLOSURE: 01

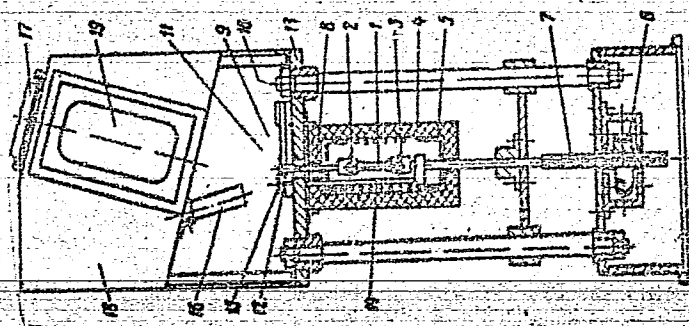


Fig. 1. Diagram of apparatus.

Card 3/3

RABOTNOV, Yu.N., akademik, otv. red.; MALININ, N.I., kand.  
tekhn. nauk, otv. red.; NAZARYANTS, I.M., red.

[Creep and lasting strength; transactions] Polzuchest'  
i dlitel'naia prochnost'; trudy. Novosibirsk, Izd-vo  
Sibirskogo otd-niia AN SSSR, 1963. 198 p.

(MIRA 18:2)

1. Vsesoyuznoye soveshchaniye po teorii raschetov na  
polzuchest' i dlitel'nyu prochnost', Novosibirsk, 1962.

DOLGOV, A.V.; MALININ, N.I.

Creep of polymers in the vitreous ~~state~~. PMTF no.5:75-82 3-0 '64.  
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Elasticity and creep of AG-40 glass plastics. Plast.massy no.7:39-  
42 '64. (MIRA 17:10)

Y. CHUNG, D.D.

TESTING OF THE 1000  
MILITARY AIRCRAFT

10-16-78  
(1978)

EWI(m)/EPF(c)/EPR/EPF(j)/T PC-4/Pr-4/Pc-4 <sup>MM/RM</sup> S/0190/65/007/002/0346/0349  
ACCESSION NR: AP5005604

AUTHORS: Ziling, N. G.; Malinin, N. I.

TITLE: Deformation and strength of oriented films of polytetrafluoroethylene

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 2, 1965, 346-349

TOPIC TAGS: polytetrafluoroethylene, stress measurement, strain measurement

ABSTRACT: Specimens of planed and oriented rolled films of polytetrafluoroethylene 100  $\mu$  thick were tested. Hardened films were investigated along with the ordinary factory product. Density of the first type was 2.16 g/cm<sup>3</sup>, of the second 2-2.12 g/cm<sup>3</sup>. Specimens were cut both parallel and normal to the film to the effective length of 20 mm. Stress-strain curves, obtained by the method described by N. I. Malinin (Zavodsk. lab., 30, 1272, 1964), are shown in Fig. 1 on the Enclosure. It is seen that at about -100C the tensile limit is higher for longitudinal specimens than for transverse ones. This may be explained by the fact that recrystallization force of transverse films is greater than the ultimate strength, and such specimens tend to be brittle. "In conclusion, the authors express their thanks to Kh. D. [Name] and G. L. Obozova for preparing the test specimens"

... tend to be brittle. "In conclusion, the authors express their thanks to Mr. D. Rashragovich, A. M. Itenberg, and G. L. Obrastsova for preparing the test specimens and for their interest in the work." Orig. art. has: 2 figures.

Card 1/3